Warm Up 3/19/19

COPY DOWN THE PROBLEMS

1. Sandy paid $52 for 3 adult and 2 child tickets to a play. Kira paid $44 for 1 adult and 4 child tickets to the same play. What is the cost of 2 adult and 1 child ticket?

A. $32.00 **B.** $34.00 **C.** $36.00 **D.** $38.00

$24 + $8

child $8.00
adult $12.00

$3a+2c=52$

$-3(a+4c=44)$

$+\ 3a+2c=52$

$-3a-12c=-132$

$-10c=-80$

$-10 \quad -10$

$c=\$8.00$

$a+4(8)=44$

$a+32=44$

$-32 \quad -32$

$a=12$

2. What is the solution for the following system of equations?

$4\begin{cases} x-3y=-16 \\ 4x+4y=0 \end{cases}$

$4x-12y=-64$

$-\ 4x+4y=0$

$-16y=-64$

$-16 \quad -16$

$y=4$

$x-3(4)=-16$

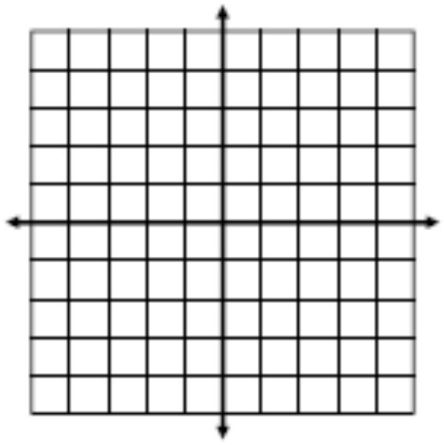
$x-12=-16$

$+12 \quad +12$

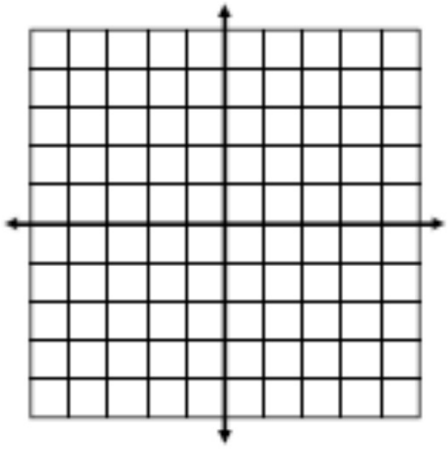
$x=-4$

$(-4, 4)$

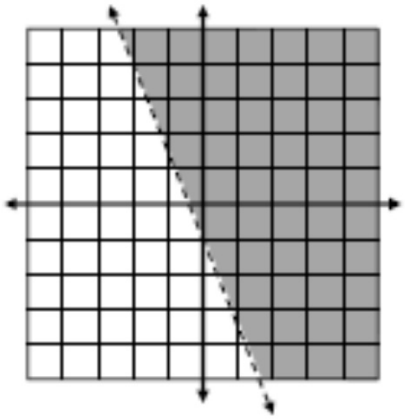
1) $y \leq -2x + 1$



2) $3x - 2y \geq 8$



3)



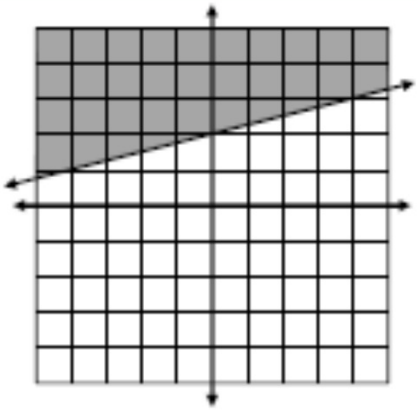
A. $2x + 5y > -5$

B. $2x - 5y < 5$

C. $5x + 2y > -2$

D. $5x - 2y < 2$

4)



A. $4x + y \geq 2$

B. $x + 4y \leq 8$

C. $4x - y \geq -2$

D. $x - 4y \leq -8$

SYSTEMS OF INEQUALITIES

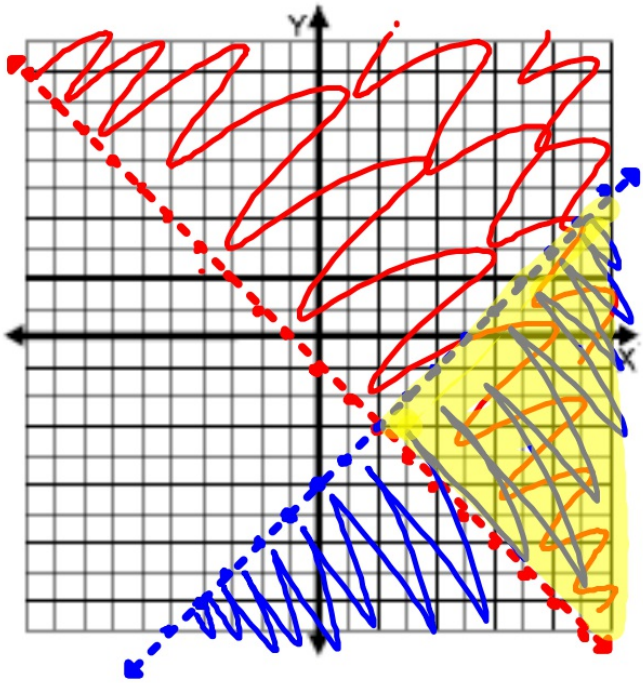
A **system of inequalities** is **two or more linear inequalities.**

The **solution** to a system of inequalities is the shaded region of points that satisfies **both inequalities.**

1. $x + y > -1$
$x - y > 5$

$y > -x - 1$

$y < x - 5$



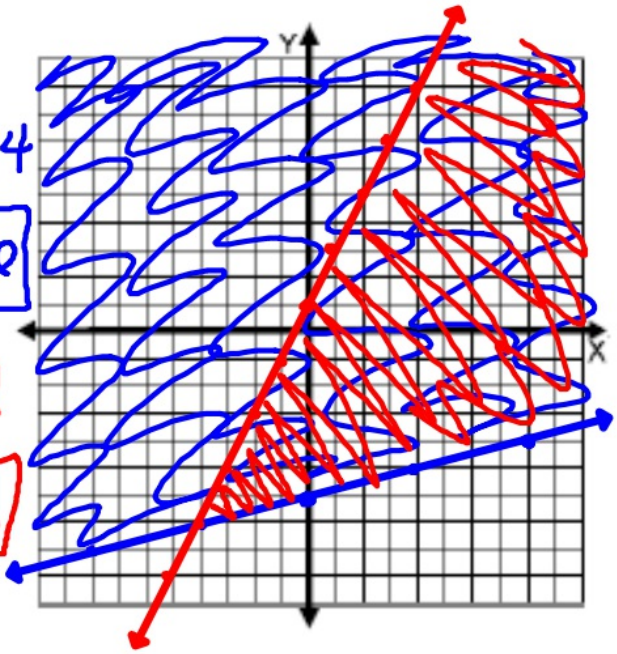
3. $x - 4y \leq 24$
$2x - y \geq -1$

$-4y \leq -x + 24$

$y \geq \frac{1}{4}x - 6$

$-y \geq -2x - 1$

$y \leq 2x + 1$

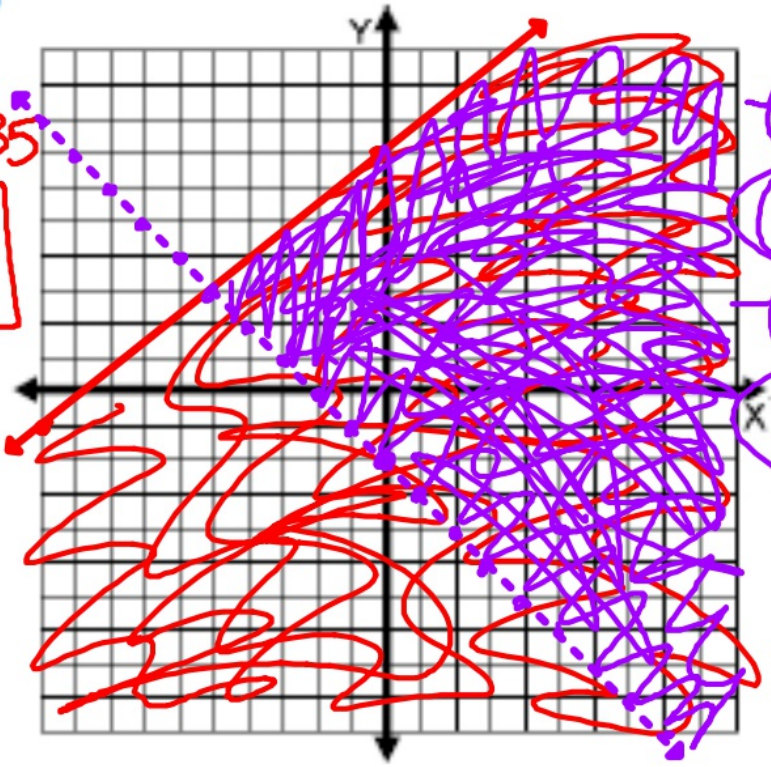


5. $4x - 5y \geq -35$
$x + y > -2$

$-5y \geq -4x - 35$

$y \leq \frac{4}{5}x + 7$

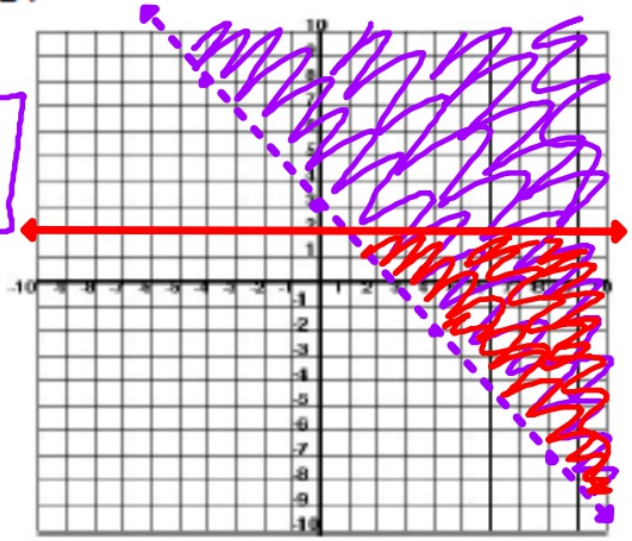
$y > -x - 2$



~~(-2,0)~~
(0,7)
~~(1,-3)~~
(4,6)

8. $8y > -10x + 24$
$y \leq 2$

$y > -\frac{5}{4}x + 3$



10. $5x + 2y \geq 4$
$x + 4y < -28$

$2y \geq -5x + 4$

$y \geq -5/2\,x + 2$

$4y < -x - 28$

$y < -1/4\,x - 7$